

CLAIMS

What is claimed is:

1. A secure document, comprising:
a pliable fabric comprising human-readable information;
a memory attached to the pliable fabric in which machine-readable information about the secure document is stored; and
an interface attached to the pliable fabric and coupled to the memory that, when a reader device reads the secure document, transmits at least a portion of the machine-readable information stored in the memory to the reader device.
2. The secure document of claim 1, wherein the secure document is secure currency.
3. The secure document of claim 2, wherein the pliable fabric comprises artwork that includes the human-readable information.
4. The secure document of claim 3, wherein the artwork comprises a bar code.
5. The secure document of claim 4, wherein the bar code comprises a watermark.
6. The secure document of claim 4, wherein the bar code is printed using magnetic ink.
7. The secure document of claim 1, wherein the pliable fabric comprises at least one of cloth, paper, and laminate.
8. The secure document of claim 1, wherein the security module further comprises a sensor, wherein when the secure document is read by a reader device, information generated by the sensor is supplied to the reader device.

9. The secure document of claim 8, wherein the sensor detects a chemical signature.

10. A currency, comprising:
a pliable fabric comprising human-readable currency information; and
a security module comprising:
a memory attached to the pliable fabric in which machine-readable currency information is stored; and
a radio frequency interface attached to the pliable fabric and coupled to the memory; and
wherein the radio frequency interface transmits at least a portion of the machine-readable currency information to a radio frequency reader device when the radio frequency interface receives a radio frequency field radiated by the radio frequency reader device.

11. The currency of claim 10, wherein the human-readable currency information comprises at least one of a human-readable identifier and a human-readable denomination.

12. The currency of claim 10, wherein the machine-readable currency information comprises at least one of a machine-readable identifier and a machine-readable denomination.

13. The currency of claim 10, wherein the radio frequency interface comprises a power extraction circuit that extracts power from the radio frequency field, wherein the extracted power powers the security module.

14. The currency of claim 10, wherein the radio frequency interface comprises a transmit circuit that transmits the at least a portion of the machine-readable currency information to the radio frequency reader device when the radio frequency interface receives the radio frequency field radiated by the radio frequency reader device.

15. The currency of claim 10, wherein the radio frequency interface comprises a receive circuit that extracts information encoded in the radio frequency field radiated by the radio frequency reader device.

16. The currency of claim 10, wherein authorization information is stored in the memory.

17. The currency of claim 10, further comprising an integrity meter that determines the integrity of a connection between the security module and the pliable fabric.

18. The currency of claim 17, wherein the integrity meter is coupled to a current source and comprises a resistive element in parallel with the current source and a conductive loop in parallel with the current source, wherein the conductive loop comprises a plurality of hooks that attach the security module to the pliable fabric.

19. A currency, comprising:
a fabric; and
a security module attached to the fabric, wherein the security module comprises a memory in which information about the currency is stored and an ink reservoir in which ink is stored; and
wherein when the security module receives a predetermined command, the security module releases the ink stored in the ink reservoir in order to mark the fabric.

20. The currency of claim 19, wherein the security module further comprises a duct coupled to the ink reservoir and the fabric.

21. The currency of claim 20, wherein the security module further comprises a heating element and wherein the security module releases the ink by causing the heating element to heat the duct when the currency receives the predetermined command.

22. A secure server for tracking a plurality of secure documents, each of the plurality of secure documents comprises human-readable information and a memory in which a machine-readable identifier is stored, the secure server comprising:

a database; and

an interface in communication with the database that, when coupled to a network, communicates over the network with at least one client device;

wherein when first information related to a first one of the plurality of secure documents is received by the secure server from the client device, the secure server stores at least a portion of the first information in the database; and

wherein the first information comprises the machine-readable identifier read by the client device from the first one of the plurality of secure documents.

23. The secure server of claim 22, wherein when the secure server receives a query from the client device about a second one of the plurality of secure documents, the secure server retrieves second information about the second one of the plurality of secure documents from the database and transmits a response to the client device derived from the second information.

24. The secure server of claim 22, further comprising server software.

25. The secure server of claim 24, wherein the server software comprises a web server that, when the interface is coupled to the network, communicates with a web browser executing on the client device.

26. The secure server of claim 24, wherein the server software includes a server cryptography module that encrypts a communication between the secure server and the client device.

27. The secure server of claim 22, wherein the network includes the Internet.

28. The secure server of claim 22, wherein the secure server stores in the database an indication of a status of the first one of the plurality of secure documents.

29. The secure server of claim 28, wherein the status indicates whether the first one of the plurality of secure documents has been activated.

30. A device for reading a secure document that comprises human-readable information and a memory in which a machine-readable identifier is stored, the device comprising:

a reader device that, when the device reads the secure document, reads the machine-readable identifier stored in the memory of the secure document;

an interface that, when coupled to a network, communicates with a secure server coupled to the network;

wherein the device sends first information related to the secure document to the secure server over the network via the interface; and

wherein the first information includes the machine-readable identifier.

31. The device of claim 30, wherein the device comprises software, an input device, and a display device, and wherein the software comprises a web browser that receives input from the input device and displays output on the display device.

32. The device of claim 31, wherein the web browser displays on the display device a web page comprising a user interface element in which human-readable information read from the secure document is entered using the input device.

33. The device of claim 31, wherein the software includes a cryptography module that encrypts a communication between the device and the secure server.

34. The device of claim 30, wherein the reader device is a radio frequency reader device.

35. The device of claim 30, wherein the reader device is a bar code reader device.

36. A method of tracking secure currency that comprises a pliable fabric and a security module in which machine-readable currency information is stored, the method comprising:

in connection with a physical transfer of the secure currency:

reading machine-readable currency information from the security module using a reader device;

obtaining information related to the physical transfer of the secure currency; and

sending at least a portion of the machine-readable currency information and the obtained information to a database for storage in the database.

37. The method of claim 36, wherein the machine-readable currency information includes a machine-readable identifier of the secure currency.

38. The method of claim 37, wherein the machine-readable identifier comprises a serial number.

39. The method of claim 36, further comprising reading machine-readable authorization information from the secure currency using the reader device.

40. The method of claim 36, wherein reader device is a radio frequency reader device.

41. The method of claim 36, wherein the obtained information includes at least one of the following: a time of the physical transfer, a reason for the physical transfer, a location of the physical transfer, an amount of currency involved in the physical transfer, a transferring party involved in the physical transfer, and a receiving party involved physical transfer.

42. The method of claim 36, wherein the database is included in a secure server and sending the at least a portion of the machine-readable currency information and the obtained information to the database for storage in the database comprises sending the at least a portion to the secure server.

43. A method of manufacturing secure currency that comprises a pliable fabric, the method comprising:

- attaching a security module to the pliable fabric of the secure currency;
- after attaching the security module to the pliable fabric of the secure currency:
- putting the secure currency into an inactive state; and
- when the secure currency is ready to be put into circulation, activating the item of secure currency.

44. The method of claim 43, further comprising, before attaching the security module to the pliable fabric of the secure currency:

- receiving the pliable fabric;
- receiving the security module;
- assigning a portion of the pliable fabric to the secure currency;
- attaching the security module to the portion of the pliable fabric assigned to the secure currency;
- printing artwork for the secure currency on the portion of the pliable fabric assigned to the secure currency;
- writing information to a memory included the security module; and
- cutting the secure currency from the pliable fabric.

45. The method of claim 43, further comprising, while the secure currency is in the inactive state, transporting the secure currency to a location where the secure currency is to be put into circulation.

46. The method of claim 43, wherein putting the secure currency into the inactive state includes reading an identifier of the secure currency and transmitting a request to put the secure currency in the inactive state to a secure server.

47. The method of claim 43, wherein activating the secure currency includes reading an identifier of the secure currency and transmitting a request to a secure server to activate the secure currency.

48. A method of destroying a secure document that comprises a pliable fabric and a security module attached to the pliable fabric, the method comprising:

when the secure document is to be destroyed:

deactivating the secure document;

physically collecting the secure document; and

destroying the secure document, wherein destroying the secure document comprises separating the security module from the pliable fabric of the secure document.

49. The method of claim 48, further comprising, when the secure document is to be destroyed, storing information in a database indicating that the secure document is to be destroyed.

50. The method of claim 49, further comprising querying the database to determine the status of the secure document, wherein when the secure document is to be destroyed the status indicates that the secure document is to be destroyed.

51. The method of claim 48, wherein physically collecting the secure document comprises physically collecting the secure document at a predetermined location.

52. The method of claim 48, wherein deactivating the secure document further comprises changing the status stored in a database for the secure document to indicate that the secure document has been deactivated.